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This publication is sent to all Boards of Health in the Commonwealth. It is requested that a copy be circulated to all board members and interested employees. Other interested individuals and agencies may request a copy by contacting the Editor.

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Letter from the Directors:

Richard D. Waskiewicz, M. S., Division of Food and Drugs, Food Protection Program
Howard S. Wensley, M.S., C.H.O., Division of Community Sanitation

In April 1998, the Conference for Food Protection held its biennial assembly in Boston, with the Massachusetts Division of Food and Drugs' Food Protection Program acting as the local host. All members of the Food Protection Program were actively involved in the 6-day conference with a program that attracted the largest attendance ever, more than 400 participants from industry, regulatory, and academia from around the nation as well as international representatives.

At the opening session of the Conference, a special presentation was made by the Massachusetts State Archivist, Dr. John D. Warner, who arrived with the newly conserved document, "Act Against Selling Unwholesome Provisions," the first food safety law in the United States. Just two months earlier, this document, signed by Massachusetts State Senate President Samuel Adams and Governor Thomas Cushing in 1785, had been sitting in a vault, folded, aging, and degrading. Dr. Warner displayed the document at the opening session, and provided commentary about the local, national, and world events which coalesced in the 1780s, thus fostering the passage of this law.

The conserved document is presently housed in the Commonwealth Archives in Boston. A copy of the text of this document is available on page 30.

At the Conference, all of the Council sessions were heavily attended, many running beyond allotted time schedules as attendees discussed, deliberated, and voted on the impact of food-related laws and regulations; various administrative, education and certification guidelines; and the science and technology of food safety issues. The Conference voted to endorse a consumer advisory, to be displayed on restaurant menus or placards, which will warn consumers of the risks of consuming raw animal foods such as eggs, shellfish and meats. This advisory will include an alert to specific populations which are at an increased risk of contracting and becoming ill from a foodborne illness. Another significant vote at the Conference was concerned with bare-hand-contact for ready-to-eat foods. The Council recommended that there be no bare-hand contact of ready-to-eat foods, and upheld the use of barriers (i.e., tongs, gloves, and deli

papers). Double hand-washing in the food preparation area was also accepted as an alternaive to conventional barriers. The U.S. Food and Drug Administration will review all the Conference recommendations and decide what will be adopted into the Model Food Code.

This issue of THE REPORTER brings together may of the topics that were presented at the April conference. The first article about summer food safety provides good advice for catching, purchasing, storing and preparing fresh fish and seafood. These guidelines are followed by an article which explains and provides an example of the tag which is required on lots of fresh shellfish, and another article by the federal Food and Drug Administration outlining the present efforts to ensure a safe seafood supply.

The article on foodborne illness highlights the need to prohibit direct hand-contact of ready-to-eat foods. This case, as well as a high percent of small and large foodborne illness outbreaks, is the result of viral pathogens being spread to ready-to-eat foods. Often these viral outbreaks are the result of foodworker-to-food contamination followed by consumer ingestion, and inadequate sanitation practices as well as improper use of gloves.

During Fiscal Year 1998, the Division of Community Sanitation worked hard to update and revise both the Swimming Pools and Recreational Camps regulations. The amendments include requiring anti-vortex drains in pools, emergency shut-off pump switches near wading pools and hot tubs (see article on page 27 for additional information about anti-vortex drains and emergency shut-off pump switches), additional employment standards for staff and volunteers, and updating immunization requirements. As these updated and revised regulations begin to be implemented, questions have been arising requesting the interpretation of some passages as well the need to clarify some ambiguities. Presently, these issues are being monitored, and will be examined and addressed in Fall ’98. Additionally in Fall ’98, the advisory committee on bathing beach quality (105 CMR 445.000 *Minimum Standards for Bathing Beaches*) will reconvene.

This year Leonard Letendre, D.V.M., M.S., R.S. left the Division as the foodborne illness coordinator and public health veterinarian in order to return to private veterinary practice. Also, leaving the Department, after 11 years of conducting food inspections, Diane Bernazzani, R.S. is now focusing on the raising of her three children. In order to keep herself professionally engaged, Diane has added some food safety consulting work to her family responsibilities.❖

Summer is Seafood Time in Massachusetts

In Massachusetts, the start of summer is the signal for many people to think about preparing and eating more fresh seafood, especially digging up some local steamers, boiling up lobster, and preparing clam bakes and clam boils. Throughout the year, the staff of Seafood Inspection Unit of the Division of Food and Drug within the Massachusetts Department of Public Health is on duty to assure the citizens of the Commonwealth that the product that is purchased from the local market or restaurant is a safe product. However, a wise consumer is advised to adhere to the following guidelines when purchasing, storing, handling, and preparing seafood.

- For people who enjoy recreational fishing and shellfishing, it is important to follow state and local regulations and be aware of health and safety advisories about fishing and harvesting areas.

- Temperatures are particularly important, especially for people who are out fishing and digging clams. A fish held at 50°F will spoil five times faster than one held at 32°F. A good rule of thumb is that the product shelf life is cut in half by every 10°F increase in temperature. So remember, when going out fishing or clamming, bring along a cooler of ice for the fish and shellfish.

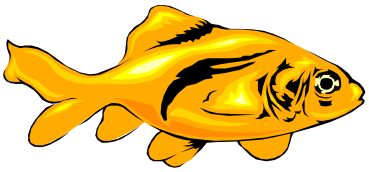
- Always wash hands thoroughly with hot, soapy water before and after handling raw seafood.

How to Purchase

- Know your seafood dealer - buy products from approved, reputable licensed stores or markets with evidence of good refrigeration, icing, and sanitation.
- Never buy swollen, dented cans or containers of fish and seafood.

Fresh Fish

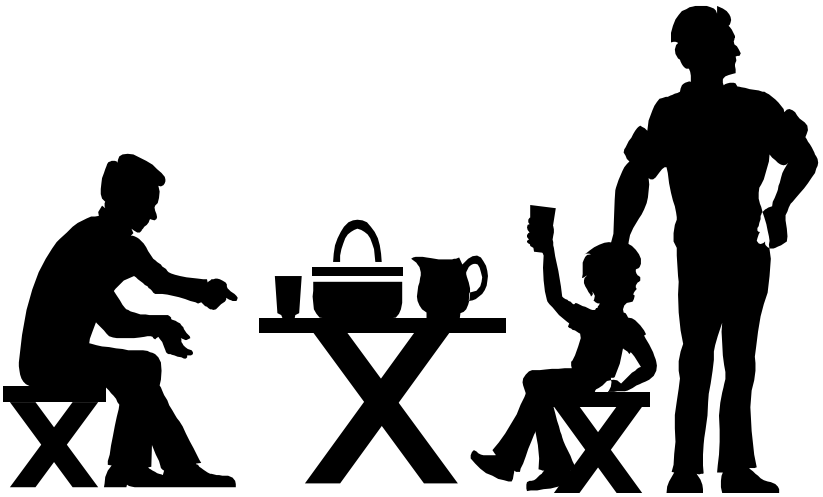
- Fresh fish should have a mild sea breeze odor. A strong, fishy odor generally is not acceptable.
- Whole fish should have bright, clear and shiny eyes. Scales should be shiny and cling tightly to the skin. Look for bright pink or red gills.
- Steaks and fillets should be moist and free of drying or browning around the edges.



- At the market, make sure that cooked seafood products are not in contact with raw seafood products in the display case.

Frozen Fish

- Make sure the packages are undamaged and fillets or steak are solidly frozen in the package.
- Fish should be free of ice crystals and freezer burn (i.e., discoloration or drying.)
- Avoid packages that are above the frost line in a store's display freezer.

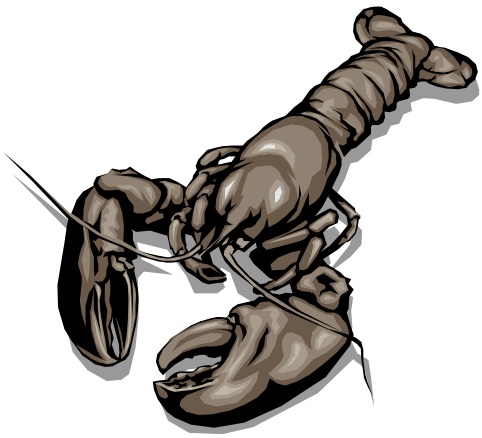


Fresh Shellfish

- "Shell on" products such as mussels, clams, and oysters should be

purchased alive. Shells of live clams, mussels and oysters may gape naturally, but will close tightly when tapped, indicating that they are alive.

- Live crabs and lobsters will show some leg movement.
- Live lobsters will curl their tails tightly beneath them when handled.
- Freshly shucked oysters and scallops have a fresh odor. A clear, slightly milky or light grey liquid should surround freshly shucked oysters.
- If in doubt about the source or raw oysters, clams, and mussels, ask seafood market personnel to show you the shipper's tag that accompanies "shell on" products or check the shipper number on the container of shucked oysters.



Frozen Shellfish

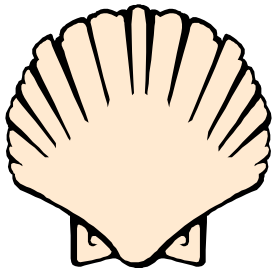
- Be sure that shellfish is packed in close-fitting, moisture-proof containers.
- Frozen, prepared items such as crab cakes or breaded shrimp should be frozen solid with no sign of freezer burn (i.e., discoloration or drying) and no unpleasant odor.

How to Store and Handle

- Get seafood home and into the refrigerator as quickly as possible. Do not leave perishable items in hot cars or out in the sun for extended periods, unless packed in ice or in a cooler.
- Keep seafood products cold to keep them safe. Maintain your refrigerator between 34°F and 40°F, and your freezer at 0°F or colder.
- Store fresh fish in the coldest part of the refrigerator - under the freezer or in the "meat keeper" drawer. If you are not going to use the seafood within one or two days, freeze it. However, do not refreeze previously frozen products.
- Clams, oysters, and mussels should be refrigerated in containers with clean, damp cloths - not with air-tight lids. Use fresh shellfish within one or two days.
- Keep frozen fish and shellfish frozen at 0°F and for best quality use them within three to six months. The longer these foods are frozen, the more likely they are to lose flavor, texture, and moisture.
- Pasteurized products such as crabmeat can be stored up to six months in the refrigerator. Once opened, use within three to five days. (Pasteurized products should not be frozen.)
- Store canned seafood in a cool, dry place for up to one year.
- Refrigerate and freeze leftovers immediately in moisture-proof packages or containers.

How to Prepare

- Thaw frozen seafood slowly to minimize drip loss and protect flavor, aroma, and texture. During thawing, always place the product in drain pans or other containers that prevent build-up of melt water and drippings. The quality of seafood held in water deteriorates rapidly.



- Defrost frozen seafood in the refrigerator, allowing about one day to defrost. For a quicker defrosting, place the seafood package in a resealable plastic storage bag and immerse in a pan of cold water in the refrigerator for one to two hours per pound of seafood. Another defrosting method is to put the original package in a plastic bag, place it in a pan, and run cold water around it in the sink until

thawed. If defrosting the seafood in the microwave, cook the product immediately.

- Don't leave seafood, raw or cooked, out of the refrigerator for more than two hours,

including preparation and serving time.

- Before cooking, rinse seafood in cold water for several seconds to remove surface bacteria.
- When marinating fish and shellfish, place marinade and seafood in the refrigerator. Do not marinade at room temperature. After use, discard the marinade.
- Bacteria lingers in towels, cloths, and sponges used during preparation, so keep them clean. If a dishcloth or sponge is used to clean raw juices from fish or shellfish, do not reuse the dishcloth or sponge - wash it first.
- Wash counters, utensils, plates, cutting boards and other surfaces touched by raw seafood with hot, soapy water. Rinse thoroughly with clean water. Sanitizers containing phenols, such as Lysol and Pinesol, should never be used on seafood contact surfaces.

Cooking

Fish

- The 10-minute rule is a good guide to cook fish and applies to baking at 450°F, broiling, grilling, steaming, and poaching only. Measure the fish - whole, steaks, or fillets - at its thickest part. Calculate 10 minutes of cooking time per inch of thickness.
  - Cook a one-inch thick fish steak 5 minutes per side.
  - Pieces of fish that measure 1/22 inch or less do not need to be turned.
  - Add five minutes to the cooking time if the fish is cooked in foil or sauce. Double the cooking time for frozen fish that has not been defrosted.
- Fish is done when the flesh is opaque and begins to flake easily. If checking with a thermometer, fish is usually ready when the internal temperature reaches 145°F.

Shellfish

- Clams, mussels, and oysters in the shell should open when cooking. Remove them as they open and continue cooking until all are done.
- Shucked shellfish, such as clams, mussel,s and oysters become plump and opaque when cooked and ready for eating. The edges of the oysters start to curl.
- Raw shrimp turn pink and firm when cooked. Depending on size, it takes from 3-5 minutes to boil or steam 1-pound of medium-sized shrimp in the shell.
- Scallops turn milky white or opaque and firm. They take 3-4 minutes to cook thoroughly depending on size.
- Submerge fresh lobster in a pot of rapidly boiling water. Allow 5-6 minutes per pound, starting the timer when the water returns to a boil. A cooked, boiled lobster will turn

bright red.

Raw Seafood

Many Massachusetts people love raw seafood - little necks on the half shell, oysters, and sushi. Healthy individuals who choose to eat seafood can minimize risks by

- Ensuring that raw clams and oysters come from certified waters. For home consumption, keep raw seafood well refrigerated until time of consumption.

Who Should Avoid Consuming Raw Seafood

There are certain people who should avoid or not eat raw or under-cooked animal proteins, including seafood. These at-risk people include anyone who has a weakened immune system, because the immune system cannot fight bacteria as effectively. These people should not stop eating seafood, but it is strongly recommended that these people eat seafood only in the cooked form.

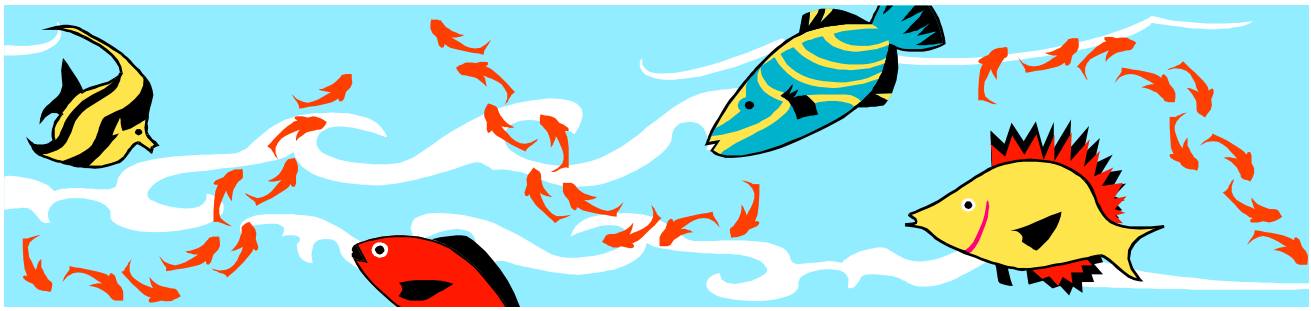
People who may be considered at-risk include anyone with liver disease, either from viral hepatitis, alcohol over-use, or other causes; diabetes; cancer; kidney disease; long-term steroid use, as for asthma and arthritis; immune disorders, including HIV infection and AIDS; stomach or blood disorders; and hemochromatosis, an iron disorder. For those people who are uncertain of their risk of consuming raw seafood, it is recommend that they should consult with their physicians.

A Final Note

The formula for safe seafood consumption is to preventing spoilage. The formula is very simple: Keep seafood clean, cool, moist, and moving. Handle seafood with care and pay close attention to temperatures and sanitation. ❖

Sources

- News about Seafood Safety and Consumer Tips, developed by the National Fisheries Institute, Arlington, VA , March 1994
- Seafood Savvy, prepared by the National Fisheries Institute, Arlington, VA. September 1996
- Handle with Care: A Retail Seafood Quality Primer, Alaska Seafood, Bellevue, Washington, 1990.
- A Food Service Guide to Seafood Quality, Alaska Seafood Marketing Institute, Juneau, Alaska.



Shellfish Tagging Requirements: Wholesale Dealer Tag

Oysters, clams, and mussels are unique foods which have been enjoyed by consumers for centuries in Massachusetts. From the earliest days, the food resources of the sea were one of the most valuable and readily usable natural resources.

Public health controls of shellfish became a national concern throughout the United States in the late 19th and early 20th century when public health authorities noted a large number of illnesses associated with consuming raw oysters, clams, and mussels.

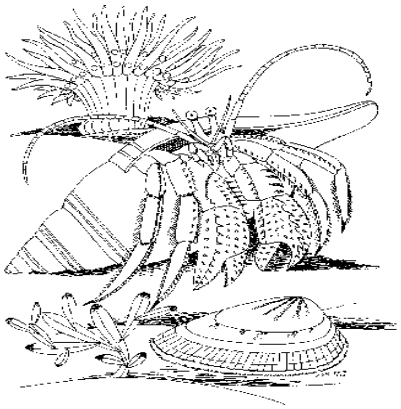
In response to these recorded shellfish poisoning deaths and widespread illness outbreaks, in 1925 the Surgeon General of the United States assembled a conference of representatives from regulatory agencies and the shellfish industry. This assembly recommended eight resolutions for the sanitary control of shellfish, specifically oysters. Today, the National Shellfish Sanitation Program is a continuation of the public health principles and controls formulated at this 1925 assembly.

In Massachusetts, the challenge for regulatory agents is the safeguarding of the Commonwealth's 1900 miles of coast line with its 1-2 million acres of shellfish flats (one-third which are productive), and an annual revenue estimated at 30 million dollars. Once harvested, the products from these flats have only a 12-15 day shelf-life; soft-shell clams for 12 days at 34-38°F and hard-shell clams 15 days at 38°F. With time and temperature as well as source being critical to a safe product, it is vital for all who oversee this industry to be diligent as to the proper labeling and tagging of all shellfish products.

Wholesale Dealer Tag

(National Shellfish Sanitation Program, Model Ordinance Tagging Requirement: Ch. VIII, .02, E. Shellstock Identification)

O	PERISHABLE KEEP REFRIGERATED **YOUR NAME** **ADDRESS & PHONE** **YOUR CERTIFICATION #**		
	ORIGINAL SHIPPERS CERT. No IF OTHER THAN ABOVE:		
	HARVEST DATE: SHIPPING DATE:		
	HARVEST LOCATION:		
	TYPE OF SHELLFISH:		
	QUANTITY OF SHELLFISH: _____BUSHELS _____COUNT _____POUNDS _____OTHER_____		
	THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY AND THEREAFTER KEPT ON FILE FOR 90 DAYS.		
	TO:	RESHIPPER'S CERT. No.	DATE RESHIPPED



- The dealer's tag shall contain the following indelible, legible information in specific order:
  The dealer's name and address.
  The dealer's certification number as assigned by the Authority.
  The original shipper's certification number.
  The date of harvest.
  The most precise identification of the harvest location or aquaculture site, as is practical.
  If the growing area has been identified and numbered by the Authority, then this designation must be used. (i.e., Cape Cod Bay: Area 1).
  The type and quantity of shellfish.
  The following statement in **BOLD CAPITALIZED** type on each tag: **"THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY OR IS RETAGGED AND THEREAFTER KEPT ON FILE FOR 90 DAYS."**

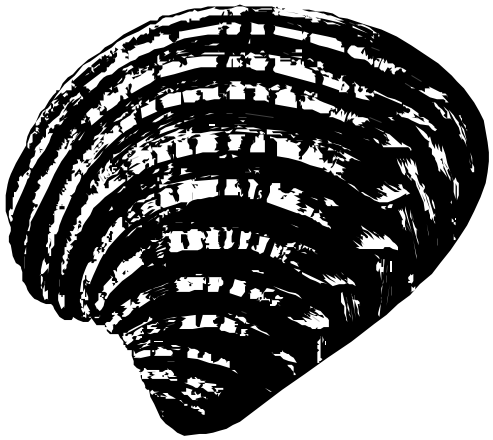
- Starting in 1998, ALL dealer's tags attached to shellfish (intended to be eaten raw) **MUST** include the following statement:

"RETAILERS, INFORM YOUR CUSTOMERS"

"Thoroughly cooking foods of animal origin such as shellfish reduces the risk of foodborne illness. Individuals with certain health conditions such as liver disease, chronic alcohol abuse, diabetes, cancer, stomach, blood or immune disorders may be at higher risk if these foods are consumed raw or undercooked. Consult your physician or public health official for further information."

This statement may be printed on either the front or back or the dealer's tag.

Other dealer requirements include:



- All trucks used to transport shellstock shall br mechanically refrigerated and properly constructed, operated, and maintained to prevent contamination, deterioration, and decomposition.
- All containers used to transport shellstock shall be:
  Constructed to allow for easy cleaning and
  Maintained to prevent product contamination.
- All containers used for storing shellfish shall be clean and constructed from safe, sanitary materials.
- Any ice used to cool shellfish must be made on-site from potable water in a commercial ice machine or come from a facility sanctioned by the Authority.
- Food service establishments and retail stores shall pur-

chase shellfish only from licensed wholesale dealers.

- All shellstock purchases shall be accompanied by a dealer tag. The tag shall contain, at a minimum, all the information as displayed on the sample wholesale dealer tag on page 9.
- Shucked shellfish meats shall be purchased in a properly labeled container. A properly labeled container will include the following information: the name and address of either the manufacturer, packer, or distributor; the net amount of food in the package; the common or usual name of the food; and the ingredients. The container must also be labeled with the state-issued permit number of the processor: i.e., MA 123 SP, RI 456 SP. In addition the calendar or Julian date of processing must be clearly indicated on sidewall and top of the container.

The information provided is intended to be used as a general guide. Additional questions, clarifications, and interpretations may be directed to:

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Critical Steps Toward Safer Seafood

Paula Kurtzweil
November-December 1997 FDA Consumer.

The version of **Critical Steps Toward Safer Seafood** is from the original article and contains revisions made in February 1998.

A tender tuna steak lightly seasoned with lemon pepper and grilled over a charcoal fire is one way to please a seafood lover's palate. Stuffed flounder, lobster thermidor, and shrimp scampi are others.

But blue marlin served up with a dose of scombroid poisoning or steamed oysters with a touch of Norwalk-like virus are more likely to turn the stomach, instead of treating the palate.

In 1997, 26 employees of the World Bank headquarters in Washington, D.C., developed headaches, dizziness, nausea, and rashes several hours after eating blue marlin served in their workplace cafeteria. An emergency room doctor who treated some of the victims attributed the illness to scombroid poisoning, which is caused by a toxin produced when certain fish spoil.

In 1995, the national Centers for Disease Control and Prevention reported 34 incidences of food poisoning in people who had eaten oysters harvested from certain southern U.S. waters. Health experts blamed the flu-like illness on a virus similar to the Norwalk virus, which is usually introduced into fishing areas by human sewage.

Generally, seafood is very safe to eat, says Phillip Spiller, director of the Food and Drug Administration's Office of Seafood. "On a pound-for-pound basis, seafood is as safe as, if not more safe than, other meat sources. But no food is completely safe, and problems do occur."

Spiller points out that while FDA has regulated seafood for decades, a new FDA program that went into effect in December 1997 aims to further ensure seafood's safety. This program requires seafood processors, repackers and warehouses--both domestic and foreign exporters to this country--to follow a modern food safety system known as Hazard Analysis and Critical Control Point, or HACCP (pronounced hassip). This system focuses on identifying and preventing hazards that could cause food-borne illnesses rather than relying on spot-checks of manufacturing processes and random sampling of finished seafood products to ensure safety.

This is the first time that the HACCP system is being required for the processing and storage of a U.S. food commodity on an industry-wide basis.

Seafood safety could be further ensured if seafood retailers integrate HACCP in their operations. Although seafood retailers are exempt from the HACCP regulations, FDA, through its 1997 edition of the Food Code, encourages retailers to apply HACCP-based food safety principles, along with other recommended practices. The Food Code serves as model legislation for state and territorial agencies that license and inspect food service establishments, food vending operations, and food stores.

These efforts will be accompanied by seafood safety programs already in place, such as ongoing research by FDA's seafood safety experts and others, and the National Oceanic and Atmospheric Administration's voluntary fee-for-service inspection program.

Consumers are expected to continue their role,

too, choosing seafood retailers and products carefully, and handling and serving their products with care in the home.

"Consumers are a step along the way to ensuring that only safe seafood goes in the mouth," says Mary Snyder, director of programs and enforcement policy in FDA's Office of Seafood. "They have to know what they're doing."

Reducing Hazards with HACCP

Seafood can be exposed to a range of hazards from the water to the table. Some of these hazards are natural to seafood's environment; others are introduced by humans. The hazards can involve bacteria, viruses, parasites, natural toxins, and chemical contaminants.

The HACCP system that seafood companies will have to follow will help weed out seafood hazards with the following seven steps:

1. Analyze hazards. Every processor must determine the potential hazards associated with each of its seafood products and the measures needed to control those hazards. The hazard could be biological, such as a microbe; chemical, such as mercury or a toxin; or physical, such as ground glass.
2. Identify critical control points, such as cooking or cooling, where the potential hazard can be controlled or eliminated.
3. Establish preventive measures with critical limits for each control point.·
4. Establish procedures to monitor the critical control points. This might include determining how cooking time and temperatures will be monitored and by whom.
5. Establish corrective actions to take when monitoring shows that a critical limit has not been met. Such actions might include reprocessing the seafood product or disposing of it altogether.
6. Establish procedures to verify that the system is working properly.
7. Establish effective recordkeeping.

Also, under FDA's HACCP regulations, seafood companies have to write and follow basic sanitation standards that ensure, for example, the use of safe water in food preparation; cleanliness of food contact surfaces, such as tables, utensils, gloves and employees' clothes; prevention of cross-contamination; and proper maintenance of hand-washing, hand-sanitizing, and toilet facilities.

In addition, molluscan shellfish handlers must follow a few additional rules; for example, they must obtain shellfish only from approved waters and only if they are properly tagged, which indicates that they have come from an approved source.

FDA estimates that more than half of the seafood eaten in this country is imported from almost 135 countries. The agency now requires for the first time that seafood importers take certain steps to verify that their overseas' suppliers are providing seafood processed under HACCP.

FDA periodically inspects seafood processors and warehouses. Required HACCP records will enable the agency to determine how well a company is complying over time.

The safety features of FDA's HACCP regulations are incorporated into the National Seafood Inspection Program of the Department of Commerce's National Oceanic and Atmospheric Administration. For a fee, NOAA inspects seafood processors and others, checking vessels and plants for sanitation and examining products for quality. The agency certifies seafood plants that meet federal standards and rates products with grades based on their quality. Seafood processors in good standing with the program are free to use official marks on products that indicate the seafood has been federally inspected.

Additional Protections

FDA promotes seafood safety in other ways, including:

·Setting standards for seafood contaminants. FDA has established a legally binding safety limit for polychlorinated biphenyls and guidelines for safety limits for six pesticides, mercury, paralytic shellfish poison, and histamine in canned tuna. (Histamine is the chemical responsible for scombroid poisoning.)
·Administering the National Shellfish Sanitation Program, which involves 23 shellfish-producing states, plus a few non-shellfish-producing states, and nine countries. The program exercises control over all sanitation related to the growing, harvesting, shucking, packing, and interstate transportation of oysters, clams and other molluscan shellfish.
·Lending its expertise to the Interstate Shellfish Sanitation Conference, an organization of federal and state agencies and members of the shellfish industry. The conference develops uniform guidelines and procedures for state agencies that monitor shellfish safety.
·Entering into cooperative programs with states to provide training to state and local health officials who inspect fishing areas (for example, shellfish beds), seafood processing plants and warehouses, and restaurants and other retail places.
·Working with NOAA to close federal waters to fishing whenever oil spills, toxic blooms, or other phenomena threaten seafood safety.
·Sampling and analyzing fish and fishery products for toxins, chemicals and other hazards in agency laboratories.

FDA also does extensive seafood safety research at its Gulf Coast Seafood Laboratory at Dauphin Island, Alabama, and its seafood laboratories in Bothell, Washington, and Washington, D.C. In addition, research at other sites around the country will be transferred early in 1998 to the agency's national seafood safety center - a joint venture with the University of Maryland's Center of Marine Biotechnology- in Columbus Center in downtown Baltimore.

Research projects include:
·Identifying a legally binding action level for histamine in fish to protect consumers from scombroid poisoning.
·Developing chemical indicators for detecting decomposed fish. Decomposition is now identified by organoleptic techniques, in which highly trained people use their sense of smell and sight to determine quality. Hoskin says that chemical indicators could help reduce costs of training people in this highly skilled area and provide a quantitative rather than a qualitative measure of decomposition. "Once you've trained an organoleptic analyst, the technique is a fast, efficient way to detect decomposed fish," he says. "But a chemical indicator will make people think the measure is more objective."

A Safe Seafood Supply

A walk through just about any seafood market or through any grocery store's seafood section will show the diversity of today's U.S. seafood supply. There are crabs and clams, bass, red snapper, catfish, octopus and squid, mackerel and salmon, and many more - from throughout the country and the world. The selection is a seafood gourmet's delight.

But delight can quickly turn to disaster if the seafood is unsafe. The establishment of HACCP in the seafood industry, along with ongoing research and other federal and state activities, and careful handling by consumers, can help ensure that seafood is not only tasty and healthful but safe to eat, as well. ❖

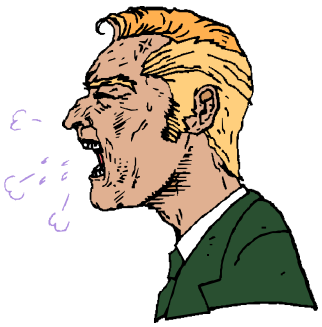
Paula Kurtzweil is a member of FDA's public affairs staff.

Publication No. (FDA) 98-2317

Food Allergy Myths and Realities
I Think I'm Allergic To....

Food Insight, November/December 1997, IFIC Foundation

Do you, or someone you know, shun certain foods because you are "allergic?" Surveys show that nearly 1/3 of all adults believe they have a food allergy. The following seeks to shed light on such frequently asked questions as: What is a food allergy? How do you know if you have one? What should you do if you have a food allergy? And, if it is not a food allergy, what might it be?



Myth: Lots of people have food allergies.
Reality: "From talking with the public, you might think almost everyone has a food allergy," said Daryl Altman, M.D., Fellow of the American College of Allergy, Asthma and Immunology and researcher at the Allergy Information Services in Long Island, NY. "In surveys, nearly one-in-three American adults indicated he or she was allergic to some food." But in reality, the most conservative estimates indicate two percent of the population in the U.S. are food allergic. Children are more susceptible than adults to food allergy-up to five percent have some type of food allergy. However, common allergens such as eggs and milk are typically outgrown by age five.

The eight most common food allergens in people are: Peanuts, tree nuts (for example, almonds, pecans and walnuts), dairy, soy, wheat, eggs, fish and shellfish (for example, shrimp and crab). Nevertheless, allergies to nearly 175 different types of food have been documented. "These foods are responsible for over 90 percent of serious allergic reactions to food," stated Susan L. Hefle, Ph.D., co-director of the Food Allergy Research and Resource Program at the University of Nebraska-Lincoln.

Myth: A food allergy means I'll just get a runny nose, right?
Reality: No -- although food allergy is rare, it is a serious condition and should be diagnosed by a board-certified allergist. Food allergy is a reaction of the body's immune system to a certain component, usually a protein, in a food or ingredient. The reactions can be uncomfortable and mild including vomiting, diarrhea, skin rashes or runny nose, sneezing, coughing and wheezing, and may occur within hours or days after eating. However, anaphylaxis, a more serious and life-threatening reaction, may occur. Anaphylaxis is a rapidly occurring reaction that often involves hives and swelling, enlarging of the larynx with a choking sensation, wheezing, severe vomiting, diarrhea and even shock. These symptoms can also occur within minutes, hours or days. "Food allergic patients should have an anaphy-laxis reaction plan worked out ahead of time with their allergist," according to Anne Munoz-Furlong, president and founder of The Food Allergy Network. "The plan should be practiced with family and friends in case of an emergency."

Myth: Any negative reaction to a food is a food allergy.
Reality: Adverse reactions to food can have many causes. If something does not "agree with you," it does not necessarily mean you are allergic to it. Food allergy is a very specific reaction involving the immune system of the body, and it is important to distinguish food allergy from other food sensitivities. Whereas food allergies are rare, food intolerances, which are the other classification of food sensitivities, are more common. Intolerances are reactions to foods or ingredients that do not involve the body's immune system. In-

tolerance reactions are generally localized, transient and rarely life threatening with one possible exception-sulfite sensitivity. "A good example of a food intolerance is lactose intolerance. And, it is extremely important to know the difference between it and a milk allergy," said Robert K. Bush, M.D., University of Wisconsin. He emphasized that, "Whereas lactose intolerance may result in a bloated feeling or flatulence after consuming milk or dairy products, milk allergy can have life-threatening consequences. The milk allergic patient must avoid all milk proteins."

Myth: I think I'm allergic to a food -- I just won't eat it, so I don't need to be seen by a doctor.

Reality: Just thinking you are allergic to a food does not mean you have an allergy. To properly diagnose a food allergy or sensitivity the offending substance must be accurately identified. Avoiding a food may deprive you of food choices and important nutrients, and could be dangerous if the allergen is actually different. Diagnosis of a food allergy can be complex, with three major components. The first and most important is involving a board-certified allergist, preferably a food allergy specialist. Second, a history of a specific food causing an allergic reaction is necessary; a food diary can help. Third, an IgE antibodies test, is only useful when combined with the former components, but it does not always pinpoint a food allergy (see sidebar). Hugh Sampson, M.D., director, Food Allergy Clinic, Mt. Sinai Medical Center, and chair of the American Academy of Allergy, Asthma and Immunology's Adverse Reactions to Foods Committee, emphasized an examination by a board-certified allergist: "Due to many people claiming to have food allergies, many physicians have become "desensitized" to taking their symptoms seriously."

Myth: I don't frequently eat food I'm allergic to, so I can eat a little bit for a special occasion.

Reality: Because food allergy can be life threatening, the allergen must be completely avoided-even the most minute amounts. Although an extreme case, a man allergic to shellfish died of anaphylaxis shock after encountering simply the steam from shrimp. It can be fatal to assume a given food environment is safe and not be cautious. A board-certified allergist can help the food allergic patient manage diet issues without sacrificing nutrition or pleasure when eating at and away from home. Since most life threatening, and sometimes fatal, allergic reactions to foods occur when eating away from home, it is imperative that the food allergic individual or responsible guardian clearly explain the risks of exposure to a certain food or ingredient to food service workers, family and friends-and always ask before eating.

.**Myth: With all the ingredients in processed food I can never completely avoid**

What is an Allergic Reaction?

An allergic reaction occurs when a susceptible person is exposed to a specific protein. Because the body perceives this protein (an allergen) as being a threat, it produces a special material-a substance that recognizes allergens-known as Immunoglobulin E (IgE) antibody. A person who has a tendency to develop allergies tends to produce increased amounts of IgE. After the initial exposure to a specific allergen (such as "cat" or "dog" protein) the body reacts to future exposures by creating millions of IgE antibodies. These newly produced IgE antibodies then connect to special blood cells called basophils, and special tissue cells called mast cells. These cells are then "stimulated" to release histamine which causes the allergy symptoms: Itchy watery eyes and nose, scratchy throat, rashes, hives, eczema and even life-threatening anaphylaxis.

my allergen.
Reality: When purchasing groceries, labels should be read for every product purchased-every time. Although food and beverage manufacturers are often improving and changing their products, changes in ingredients must be listed on ingredient labels.

According to Fred Shank, Ph.D., director of the Center for Food Safety and Applied Nutrition, Food and Drug Administration (FDA), "Foods which contain allergenic substances must be properly labeled or be subject to recall. The FDA supports the activities of independent organizations to inform consumers of these recall activities." The FDA includes on its list of recall substances all eight of the major allergens, so if these substances are present in a food, but not listed on the label, they must be recalled. Additionally, substances which cause non-allergic-based reactions, such as the additives sulfites and tartrazine (FD&C Yellow #5), are on this list. Some individuals have unique sensitivities to these food components which are not allergenic or allergy-causing in nature, but may cause comparably severe reactions.

Myth: Since I'm allergic to peanuts, I can't eat anything with peanut oil.
Reality: There are many misunderstandings regarding exactly what might stimulate the food allergic reaction. "Virtually all food allergens are proteins," explained Steve L. Taylor, Ph.D., co-director of the Food Allergy Research and Resource Program at the University of Nebraska-Lincoln. "And, the process of refining oil removes the protein which would trigger an allergic reaction." Oils used in processed foods and in cosmetics are highly refined and should pose no problem for the food allergic individual. Yet, caution should be taken with natural, cold pressed or flavored oils. These oils, as well as oil that has been used to cook peanuts (or another food to which an individual might have an allergy), might contain the protein of the allergen and should be avoided. For example, an individual with a fish allergy should ensure that the oil used to cook his or her food was not first used to fry fish.

Myth: I'm allergic to food additives.
Reality: Other common misconceptions regarding food allergy are additives and preservatives. Although some sulfites and tartrazine have been shown to trigger asthma or hives in certain people, these reactions do not follow the same pathway observed with food. There are other food additives that have historically been associated with adverse reactions, but because they do not contain proteins or involve the immune system, true allergic pathways cannot be used to explain the reported reactions. In addition, many of these additives, including monosodium glutamate, aspartame and most food dyes have been studied extensively, and the results show little scientific evidence exists to suggest they cause any reaction at

The Double-Blind Placebo-Controlled Food Challenge
This test, considered the "gold standard" for food allergy testing, is performed by a board-certified allergist. The suspected allergen is placed in a capsule or hidden in food, and fed to the patient under strict supervision. Neither the allergist, nor the patient, is aware of which capsule, or food, contains the suspected allergen-hence the name "double-blind." In order for the test to be effective, the patient must also be fed capsules or food which do not contain the allergen to make sure the reaction, if any, being observed is to the allergen and not some other factor-hence the name "placebo-controlled." It is tests of this kind that have enabled allergists to identify the most common allergens, and also to determine what foods, ingredients and additives do not cause allergic reactions.

What is Sulfite Sensitivity?

Sulfiting agents are commonly used to preserve the color of foods, such as dried fruits and vegetables, and to inhibit the growth of microorganisms in fermented foods, like wine. Sulfites can also be found in beer, some fruit drinks, shrimp and some prepared foods. Although sulfites are safe for the majority of people, for some, they have been found to cause a reaction. For this reason, the FDA requires that when sulfites are added to foods in greater than 10 parts/million (or, 10 sulfite molecules/million molecules) they must be indicated on the label.

all.

Myth: "Tell me about my corn allergy."
Reality: There are those suspected food allergies that are so rare that their existence is questioned. The most common of these are corn and chocolate "allergy," and there are several probable explanations for adverse reactions. Even though many people claim to be allergic to them, allergists can rarely demonstrate allergy to corn or chocolate in double-blind, placebo-controlled food challenges (see sidebar).

Corn "allergy" is often associated with a reaction to another allergenic substance. In some cases soy allergic individuals may react to products containing corn. Occasionally corn is carried, handled or stored in the same containers used for soy. Although only minute residues of soy may remain, this can be enough to cause an allergic reaction in highly sensitive people.

- Chocolate "allergy" is also thought to be extremely rare, and though some are truly chocolate-allergic, most who complain of symptoms have irreproducible reactions. Possibly the reactions are due to another ingredient found in the chocolate product being consumed.
- Food allergy is certainly nothing to be taken lightly. Although its prevalence appears to be increasing, overreaction, self-diagnosis and incorrect assumptions only lead to skepticism of physicians and food service workers--obviously, a less-than-ideal situation for the truly allergic individual. It is vitally important to leave the diagnosis of a food allergy to a board-certified allergist.

The following organizations can help you more fully understand food allergy: The American Academy of Allergy, Asthma and Immunology: (1-800-822-2762; www.aaaai.org) and the Food Allergy Network: (1-800-929-4040; www.foodallergy.org.) The International Food Information Council Foundation (http://ificinfo.health.org) can provide further information on food allergy and food and asthma. Also available is a food allergy poster designed for food service workers. ❖

Avoid Cross Contact!

Cross contact of foods with those that may present a food allergy problem is poorly understood and not well communicated. Although food processors are well aware of the dangers of cross contact and manage them appropriately, such caution is not always taken in the home, school cafeteria or restaurant. Although unintentional, the effects can be devastating. For some food allergic individuals, the most minute particle of the allergen can be fatal. Some examples of mishaps that can induce a food allergic reaction include:

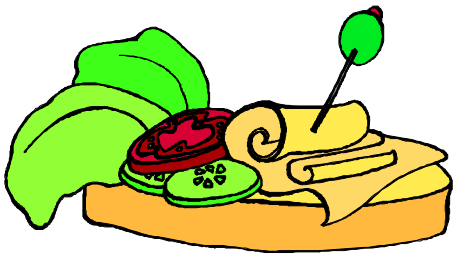
- Plain chocolate brownies are served using the same spatula that was used to serve peanut-containing brownies.
- French fries are prepared in the same oil used to deep-fry fish.

Foodborne Illness Outbreak in a Large Hotel Associated with Small, Round Structured Viruses

Leonard J. Letendre, D.V.M., M.S., R.S.

Introduction

Foodborne illness caused by virus occurs infrequently as compared to illness attributed to bacterial origin. Foods contaminated via hand-contact of a food handler who is actively shedding virus in stool is the most common means of transmission of viral foodborne illness. Environmental viruses, transmitted through soil, water and air, also have been documented as responsible for food contamination. Fruits and vegetables are commonly contaminated by viruses that are present in soil (1). Proper washing and cleaning of these products prior to consumption minimizes the potential for illness.



Norwalk virus and Norwalk-like virus; small round-structured virus; astrovirus and rotavirus have been reported as agents responsible for causing foodborne illness. Foodborne illness from viral agents usually causes acute vomiting, diarrhea, fever, myalgia, and headache. The laboratory diagnostic test for virus detection and identification is immunoassay or immune electron microscopy.

Like all virus particles, growth and multiplication does not occur in food. The infective dose of virus is about 10-10² particles/ml (unpublished volunteer experiments), whereas the sensitivity of the currently available detection methods is 10^6-10^7 particles/g for electron microscopy and 10^4-10^5 particles/g for radioimmunoassays (2). In foodborne illness outbreaks caused by virus, viral particles are excreted in feces. Virus may be shed up to 48 hours after recovery (3). Fecal-oral transmission remains the leading cause of viral contamination. Viral-contaminated air droplets produced as a result of vomiting have also been implicated in foodborne outbreaks. Viral particles can survive in the environment for a prolonged period of time. Protein covering and cation activity directly effect virus viability. Moisture, pH, adequate temperature and appropriate media often provide for a prolonged environmental presence of the virus.

Case Study

More than 700 people became ill after eating at a series of banquets in the same hotel facility. All of the banquets occurred within a one week. Different food items were served at the banquets and all the foods were prepared in the same kitchen facility. The majority of attendees who became ill complained of nausea, vomiting and diarrhea. The onset of symptoms occurred approximately 30 hours after eating at the hotel facility. In most cases, the symptoms lasted for 12 to 24 hours. Foodhandlers working at the banquets reported illness with similar symptoms and onset times. Stool samples from all of the foodhandlers and wait staff, as well as a number of ill patrons, were submitted to various laboratory facilities and tested for the presence of pathogenic bacteria. All of the stool samples tested negative.

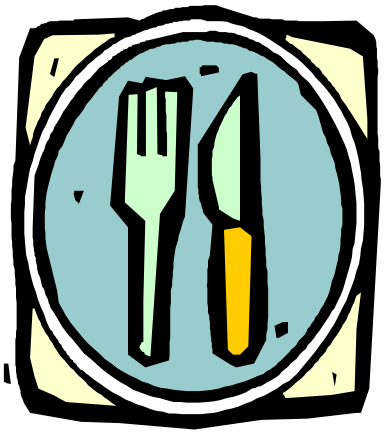
Seventy-one stool samples (from 61 employees and 10 patrons) were sent for viral studies to the Centers For Disease Control and Preven-

tion (CDC) in Atlanta, Georgia. Eleven of the 71 samples were examined by direct electron microscopy, and small round-structured viruses were detected in five and suspected in the other six. The eleven samples were from four symptomatic foodhandlers, four other employees and three patrons.

The Division of Food and Drugs as well as the local health department conducted an inspection of the hotel kitchen facility. Even though food was not being prepared at the time of the inspection, a menu review of all high-risk food was completed. It was observed that inadequacies occurred in the use of sanitizers and the final rinse temperature of the in-house dishwasher. Since ice was a common item at all the banquets, the sanitary condition of the ice machine and related filters were closely scrutinized. The procedure used to dispense ice from the machine was also reviewed.

Results and Discussion

Small round-structured viruses were identified in fresh stool samples of both ill foodhandlers and patrons at a Massachusetts hotel associated with the foodborne illness outbreak. Several banquets occurred during the outbreak which included the preparation and serving of a variety of foods. Both symptomatic and asymptomatic foodhandlers were directly involved in contamination of ready-to-eat foods at the banquets. Fecal-oral transmission was the major mode of food contamination. Viral transmission resulted primarily from the ingestion of virus-contaminated foods and secondarily from the transfer of virus from contaminated surfaces. Kitchen and bathroom surfaces and fixtures were contaminated by both hand contact and air droplets. Inadequate use of sanitizers at proper dosage may have allowed viruses to remain for a prolonged period of time in the environment. Bathroom facilities as well as sinks and faucets throughout the hotel could have been easily contaminated and should be regarded as a major means of vial transmission from person-to-person. Ice contaminated by hand contact is also regarded as a mechanism responsible for the numerous cases of gastrointestinal illness reported. Inadequate sanitizing of dishes by a final rinse temperature of 161°F. in the dishwasher could have allowed viral particles to survive and remain present for prolonged periods of time on dishes and utensils. An inspection by the Division of Food and Drugs indicated that the dishwasher in the hotel was not operating properly and that the final rinse was less than 140°F.



Massachusetts Regulation Enforcement Issues

Food handlers who experience any gastrointestinal symptoms must be removed from all food preparation and/or food handling duties until all such symptoms cease. (Massachusetts Regulation 105 CMR 590.008 - Minimum Sanitation Standards for Food Establishments - Article X).

All food handling employees must perform frequent hand washing or use gloves. (105 CMR 590.009).

Sanitizers used in the kitchen facility must be of the proper concentration (105 CMR 590.013).

Dishwasher temperature gauges must be routinely monitored and inspected (105 CMR 590. 013).

Although not presently mandated by Massachusetts regulation, it is strongly suggested that a frequently cleaned and sanitized bathroom facility be made available for sole use by the kitchen staff.

Conclusion

In summary, food contaminated by both symptomatic and asymptomatic foodhandlers appears to be the lead cause for illness occurring. Environmental contamination also must be considered as a source of agent transmission. **Improper personal hygiene, improper cleaning and sanitizing of restrooms, improper sanitizing of kitchen equipment must be regarded as major issues of conduits of illness in this outbreak.**❖

References:

(1) A Foodborne Outbreak of Norwalk Virus Gastroenteritis. **American Journal of Epidemiology,** Vol. 124, No.1 1986.

(2) Two Outbreaks of Foodborne Gastroenteritis Caused by a Small Round-Structured Virus: Evidence of Prolonged Infectivity in a Food Handler. **The Lancet,** September 5, 1987.

(3) Viral Gastroenteritis. **The New England Journal of Medicine**, July 25, 1991.

The author wishes to acknowledge and thank the members of the Working Group for Foodborne Illness Control. Members of the Group were involved in every phase of the case, including this report.

Foodborne Illness Initiatives

It's Here!
The Foodborne Illness Investigation and Control Reference Manual

Allison Hackbarth, M.P.H.
Division of Epidemiology and Immunization

The Massachusetts Department of Public Health (MDPH) is pleased to announce the all new Foodborne Illness Investigation and Control Reference Manual, available for local boards of health in Massachusetts.

Increased emphasis is being placed on foodborne illness investigation and control in Massachusetts. This emphasis is based on input from the MDPH's Working Group on Foodborne Illness Control; local health departments; Centers for Disease Control and Prevention's (CDC) 1994 publication, Addressing Emerging Infectious Disease Threats: A Prevention Strategy for the United States; and the recent national initiative to enhance the safety of the food supply. These sources point out the need for up-to-date information and increased technical assistance to local health departments for prevention and control of foodborne illness.

The reference manual is a comprehensive guide that offers instruction on foodborne illness surveillance, epidemiologic and environmental investigation, and control. It contains basic information, guidelines, recommendations, and regulatory requirements. The manual will be distributed free to all local health departments. Training sessions are planned that will cover material in the manual. Two copies for each local health department are available at the MDPH's regional immunization offices. Please call ahead to make arrangements for pick-up. For other health professionals who are interested, hard copies are not available, but the reference manual will be available soon on the MDPH's web page. The web page address is: [http://www.magnet.state.ma.us/dph/]. Look in the "Provider Information" section. You will need adobe acrobat reader to download information. Questions can be addressed to Allison Hackbarth, MPH, Managing Editor, at 617-983-6800. ❖

A New Surveillance System

Daniel Hamlin, M.S.
Division of Epidemiology and Immunization

The Massachusetts Working Group on Foodborne Illness Control (WGFIC) routinely uses a foodborne illness complaint worksheet to record episodes of possible foodborne illness. In 1997, the WGFIC implemented the use of a computer database system for tracking complaints, in which key information can be entered, updated, reviewed, and analyzed. Linked data files allow results from environmental, epidemiologic, and laboratory investigations stemming from specific complaints to be entered and rapidly accessed.

The database can be used to identify specific complaints based on time, town, suspect establishment(s), or other variables. Programs can be run to determine possible links among complaints received (e.g., a common town or establishment), or, for example, to analyze food handling violations found by setting or by food type. The WGFIC encourages all local boards of health to complete the complaint worksheet and to fax or mail it to the Division of Food and Drugs. A copy of

the worksheet can be found in Chapter 4 in the Foodborne Illness Investigation and Control Reference Manual. Outbreaks of foodborne illness often go undetected or are identified too late to prevent further illness. A single foodborne illness complaint received by one town, forwarded to the WGFIC, and logged into the database, may be the only link to another such complaint received from a neighboring town, thus helping to identify a foodborne outbreak.

Fax or mail (in an envelope marked "Confidential") completed worksheets to: Food Protection Program, Division of Food and Drugs, Massachusetts Department of Public Health, 305 South Street, Jamaica Plain, MA 02130, or Fax to: 617-983-6770. ❖

FDA Satellite Training Courses
Offered by the Massachusetts Department of Public Health

Food Microbiological Control
August 11-13, 1998, 11:30 to 4:00 PM (3-day course)

Audience: Federal, state and local investigators, inspectors, sanitarians and microbiologists who routinely conduct food processing and/or retail inspections.
Course Level: Introductory to intermediate.
Objectives: 1. Identify a PHF (potentially hazardous foods), the hazards associated with that food and the proper control methods applicable at the food processing and retail levels. 2. Apply knowledge of PHFs, the hazards associated with that food, control methods, and the Good Manufacturing Practices or retail Food Code to determine the adequacy of controls when conducting food inspections.
Location: State Laboratory Institute in Jamaica Plain.
Information and registration contact person : Beth Altman, M.S.W. at the Department of Public Health, Division of Food and Drugs at 617-983-6769.

Foodborne Epidemiological Investigations
November 16-19, 1998, 11:30 AM to 4:00 PM (4-day course)

Audience: Federal, state and local public health professionals, such as inspectors, sanitarians, public health nurses, and laboratory personnel, who investigate foodborne illnesses.
Course Level: Intermediate to advanced. Prerequisite recommendations: A background in microbiology and Centers for Disease Control and Prevention's (CDC) self-study course *Principles of Epidemiology*, 2nd Edition,
Objectives: 1. Apply the principles and concepts of epidemiology to investigation of foodborne illness. 2. Work as part of a team and develop cooperation and networking between departments (environmental, epidemiology and laboratory and collaborating agencies.) 3. Identify the necessity for rapid response during foodborne illness investigations. 4. Improve local, regional, and national surveillance methods by sharing information
Location: State Laboratory Institute In Jamaica Plain.
Information and registration contact person: Allison Hackbarth, M.P.H. at the Massachusetts Department of Public Health, Division of Epidemiology and Immunization. at 617-983-6800.

Both courses are free and were developed as part of the National Food Safety Initiative. ❖

Massachusetts Partnership for Food Safety Education

Rita Brennan Olson, M.S.
UMass Extension Nutrition Education Program

In 1997 the President's National Food Safety and Quality Initiative called for a farm-to-table approach to food safety education and for the formation of partnerships between government, academia, and the private sector to enhance food safety in the United States. In response to this initiative UMass Extension has convened the Massachusetts Partnership for Food Safety Education. Its mission is to provide food workers and consumers with easy access to food safety information, education and training through collaboration and communication among partners, and coordination of resources and services.

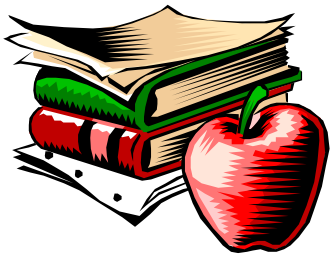
The Partnership has set a goal to reduce the risk of foodborne illness in Massachusetts by:
1. Improving food safety knowledge and skills among targeted groups.
2. Educating target groups in a systematic approach to food safety.
3. Increasing collaboration and communication among Partners.

Four initial strategies have been identified to reach these objectives. They include developing and disseminating key principles for food safety education, developing a statewide food safety education resource directory, developing a comprehensive web page with interagency linkages, and launching a food safety education campaign.

At its first project this Partnership has chosen to focus on consumers by promoting Fight Bac™ concepts as part of National Food Safety Education Month in September. Partnership members will help disseminate information and materials throughout the Commonwealth.

Current collaborators with the University of Massachusetts Extension Nutrition Education Program include representatives from regulatory, retail and educational agencies and associations. Partners include staff from regional offices of the federal Food and Drug Administration (FDA) and the United States Department of Agriculture Food and Nutrition Service (USDA-Food NS) and USDA Food Safety and Inspection Service(FSIS), Massachusetts Department of Public Health, Division of Food and Drug; Agriculture; and Education; as well as theOffice of Elder Affairs. In addition to staff and faculty from the University of Massachusetts Department of Nutrition and Hotel, Travel and Restaurant Adminstration, representatives from the Massachusetts Health Officers Association, the Massachusetts Environmental Health Association, Massachusetts Milk and Food Inspectors, Massachusetts School Food Service Association, Head Start, Massachusetts Food Association and Massachusetts Restaurant Association and the Food Banks of Massachusetts are also members.

The Massachusetts Partnership for Food Safety Education welcomes new members who are interested and committed to its mission and goal. If you would like additional information about the Partnership, its projects and/or next meeting, contact Rita Brennan Olson, M.S., Project Manager, UMass Extension Nutrition Education Program at 413-545-0552 (voice) or ritabo@nutrition.umass.edu (email). ❖



Q & A's Index
1993-1997

What kinds of foods that are prepared in **residential kitchens** are permitted for retail sale? (Fall 1993)

What types of processing operations are prohibited in a **residential kitchen**? (Fall 1993)

To evaluate the non-potentially hazardous status of a food, what type of a **laboratory analysis** can a board of health request? (Fall 1993)

Do Boards of Health have the authority to license **private clubs** which prepare and serve food? (Fall 1993)

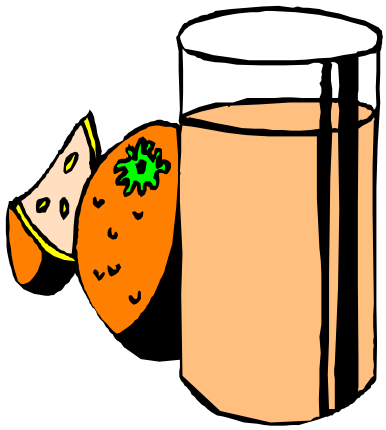
Is floor **carpeting** permitted in retail food stores? (Fall 1993)

What is the Division's policy on food handlers who care for **young children** in food establishments while working? (Fall 1993)

What would be a reasonable **cleaning frequency** for slicing machines that are used throughout the day? (Fall 1993)

May **polyester mesh produce bags** be reused by consumers in retail food stores operations? (Fall 1994)

What is the hot water temperature requirements for **handwashing sinks** in food establishments? (Fall 1994)



Must fresh fruit and vegetables be washed prior to use in a **fresh juice operation** in a food establishment? (Fall 1994)

Should local boards of health (LBOH) issue **temporary food permits** to individual vendors at an event such as a food show, fair or other large gathering where there are multiple food vendors, or should the LBOH issue a "blanket permit" to cover all of the vendors? (Fall 1995)

Are there any special requirements for a restaurant which plans to add a **retail fresh seafood** operation? (Fall 1995)

Can a variance from a section 105 CMR 590.019, Handwashing Facilities, be granted to a good service operation which does not have **handwashing sinks** in their food preparation areas if employees are permitted to use the handwashing sink in a nearby toilet room? (Fall 1995)

Should food handlers be permitted to use **"bonded" or "artificial" nails**. (Spring 1996)

What are the storage and handling requirements for **"cut melons"**? (Spring 1996)

Can a food establishment use a **warewashing sink** for food preparation? (Spring 1996)

What other products besides breads, cookies and confectioneries are **residential kitchens** permitted to produce? (Spring 1996)

What does the Department consider to be **clean outer clothing and effective hair restraints** for food handlers? (Spring 1996)

Can **wiping cloths** pretreated with sanitizing chemicals be used in lieu of storage in sanitizing solution? (Spring 1996)

Are **open-air cafes** permitted in Massachusetts? (Fall 1996)

Should food workers always wear **gloves** when handling cooked and **ready-to-eat foods**?
(Fall 1996)

Can the local board of health issue a variance to permit the self-service of raw individually quick frozen (IQF) **shell-on shrimp** in a retail food store? (Fall 1996)

What is the Department's current position on **ceiling construction** in warehouse-style retail food operations? (Fall 1997)

Recently, the Division became aware of a handsanitizer which was being marketed as a **replacement for handwashing**. The manufacturer claims that the lotion can kill pathogens on hands for up to four hours after application and that use of the lotion "eliminates" cross-contamination. Should such products be permitted as marketed? (Fall 1997) ❖

Anti-Vortex Drains Required in All Pools in Massachusetts

Kristin Andruszkiewicz, Student Intern
Kevin O'Callaghan, Student Intern
Division of Community Sanitation

In June 1993 at a recreation club in North Carolina, a five-year old girl went wading in a shallow pool. When the child neared the main drain of the pool, she sat down and became trapped by the suction pressure of the drain, a suction so strong that four adults were unable to dislodge the child from the drain. As a result of this horrifying episode, the child lost 80 percent of her small intestine and 70 percent of her large intestine. The five-year old did survive the ordeal, but her quality of life gravely suffered. Today, her sole avenue for receiving nutrition is intravenously, a daily ordeal which requires a 12-14 hour nightly procedure.

Community and health officials must be on the alert for unfastened, broken or loose drain covers, and the public educated about the dangers of these covers. The North Carolina incident may have been avoided if the drain cover had been secured properly.

In response to the North Carolina incident as well as hundreds of other recorded related injuries, on February 20, 1998 the Minimum Standards for Swimming Pools, State Sanitary Code, Chapter V (105 CMR 435.083(b)) was revised. It now requires anti-Vortex drains for swimming pools, wading pools, and special purpose pools (i.e., hot tubs, spas, etc.).

Nationwide, since 1980 there have been more than 700 recorded pool drain injuries reported, including 49 hair entanglement, resulting in 13 deaths; 18 body entrapments and five disembowelments. Most of these events involved children, and could have been prevented. In each incident, the suction pressure from an uncovered drain was the primary cause of the injury.

Today in Massachusetts, if the main-drain cover of a pool is missing, loose, cracked, easily removable, or otherwise damaged, it is a serious safety hazard resulting in the necessity to close the pool. The required type of drain cover is an anti-vortex drain cover. Anti-vortex drain covers attach to the main drain or other pump outlets of pools and spas. Anti-vortex covers have two features which lowers the risk of a bather becoming trapped by the drain pump suction:

- the covers, convex in design, when installed do not lie flat on the pool floor and
- the covers have holes on the outer rim which prohibit a body from completely enclosing the drain.

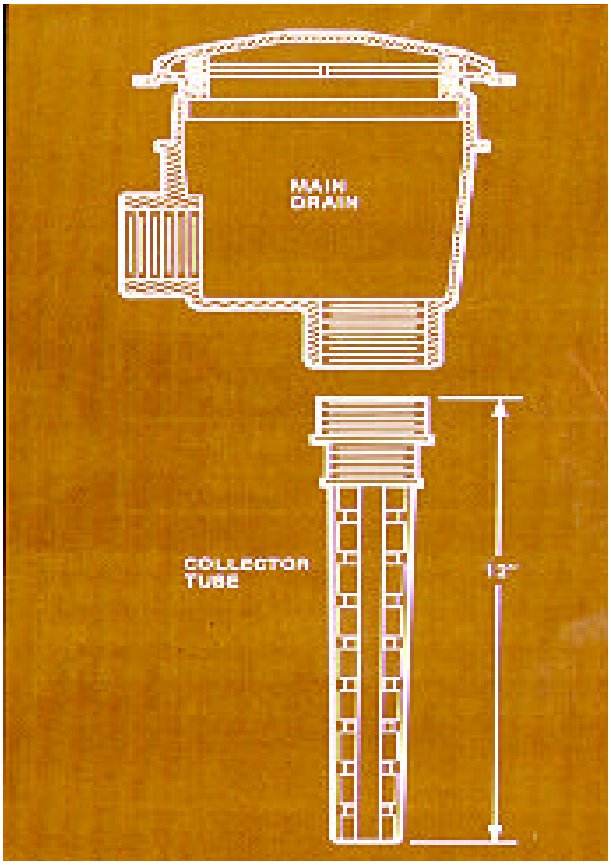
Massachusetts also requires that all main drain covers be installed in a manner which prohibit the manual removal a cover; thus, all installed covers must require tools for their removal. Simple snap-on drain covers are prohibited. All covers must be firmly installed with screws or bolts in order to prevent the

unofficial and unintentional removal of any pieces of the drain cover. State regulations also require that all covers be checked regularly in order to assure safe conditions.

For all new construction, Massachusetts regulations state that a minimum of two suction outlets be provided for each pump in the suction outlet system. These outlets must be a minimum of three feet apart, or on two separate planes (i.e., bottom and vertical) or on separate vertical walls.

By July 1, 1998 **all** wading pools as well as **all** special purpose pools (such as hot tubs and spas) must have an emergency shut-off pump switch. This switch must be in an accessible location, prominently marked, and in plain sight of the pool. (105 CMR 435.085)

For further information about the 1998 revisions to the Minimum Standards for Swimming Pools, State Sanitary Code, Chapter V (105 CMR 435.000), contact Howard Wensley, Director, Division of Community Sanitation at 617-983-6761.❖



Massachusetts Department of Public Health's Internet Homepage

Greg A. Tocco, Programs and Policy Coordinator
Bureau of Health Quality Management

(http://www.magnet.state.ma.us/dph)

The Internet is changing the way the world does business and disseminates information. The Department has embraced this revolution and is making a commitment to provide as much information and services on-line as possible. In the past year, the viewership on the Department's Homepage has increased from 313 to 8,575 viewers per month. This increase indicates that the more information the Department offers on-line, the more the Internet is utilized as a method of attaining information and services.

The Division of Food and Drug, Food Protection Program has embraced this new mode of communications by providing the issues of **The Reporter** on-line. Additionally, there are information-packed fact sheets, timely advisories and press releases, and other information resources such as an up-to-date list of Massachusetts Interstate Certified Shellfish Shippers, Consumer Food safety Tips, "Residential Kitchens: Questions and Answers" and "Sanitary Operating Procedures for Massachusetts Cider Mills." Thus, Food Protection Program is able provide viewers with pertinent and important information in a timely and efficient manner.

The Department will continue to utilize the Internet as a means of disseminating timely and useful information. In addition, the Department plans to expand the Internet's role to the actual delivery of services. The result will be improvements in quality and efficiency for the end-user as well as cost and time savings for the Department. ❖

Mailing List Going Electronic

Most likely, you received this edition of **The Reporter** via the conventional method of the postal service. For the next edition of **The Reporter** I will also distribute copies by using the Internet. Therefore, I am assembling an e-mail list. To be added to this e-mail list, please send your address to:

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Commonwealth of Massachusetts

1784 - Chapter 50
[January Session, ch. 18]

An Act Against Selling Unwholesome Provisions

Whereas some evilly disposed persons, from motives of avarice and filthy lucre, have been induced to sell corrupted, contagious or unwholesome provisions, to the great nuisance of public health and peace:

Be it therefore enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, That if any person shall sell any such diseased, corrupted, contagious or unwholesome provisions, whether for meat or drink, knowing the same, without making it known to the buyer, and being thereof convicted before the Justices of the General Sessions of the Peace, in the county where such offence shall be committed, or the Justices of the Supreme Judicial Court, he shall be punished by fine, imprisonment, standing in the pillory, and binding to the good behaviour, or one or more of these punishments, to be inflicted according to the degree and aggravation of the offence.

March 8, 1785